MEETING MINUTES

Project:	Wells G & H RD/RA Oversight EPA ARCS I WA NO. 15-1P46
Subject:	Review of EPA Comments on Grace and Unifirst Pre-Design Phase II Work Plan & QAPP
Date, Time and Location:	January 10, 1991, 1000-1530 Hours at Goodwin, Proctor, & Hoar, Boston
Attendees:	Barbara Newman, Dick Willey, EPA; Jay Naparstek, DEP; Denis D'Amore, Weston Geophysical; Steve Graham, Ebasco (author); Jeff Lawson, EPA; Jay Bridge, Geotrans; Bill Ryan, Canonie; Maryellen Johns, Grace; Liz Schultz, Trillium; Chris Crandell, The Johnson Co.; Mike Moore, Laura Moore, ENSR

EPA's January 8, 1991 package of comments to the PRP's representatives, Jeff Lawson, EPA were reviewed at this meeting. Only those comments for which a response was provided at the meeting are included here. The PRPs stated that the remainder of the comments were straight-forward and simply required information or clarification, which will be provided to EPA by January 17, 1991.

The PRP's proposed schedule, e.g. to begin areal sampling (January 25) and continue other key activities, is dependent upon EPA approval of the Work Plan and the timing of Ebasco oversight CLP analysis arrangements. EPA will inform EPC on Monday, January 14 of the areal sampling start date based on Ebasco's CLP schedule. Also concerning the schedule, EPC agreed to provide a Gantt schedule indicating key project milestones in a bar chart type format.

Response to EPA Comments
Groundwater Issues

1. PRPs maintain their position, but will review the data again.

2. Attorneys are resolving for both sides.

3. Summary to be prepared as addendum or incorporated into text, noting what has been done and what has been approved.

4. Now to read, "Geologically different types of unconsolidated materials".

5. All wells have been integrity tested, except on NEP properties, to be done later. List of all wells tested and results will be provided January 17, 1991.

6. Goal is to identify baseline quality of contaminated groundwater areas prior to treatment and subsequent remediation. This enhances treatment unit selection, for example, UC17 or UC18, or possibly both, will be sampled prior to and during the pump test.

7. RW-3 is part of areal sampling, see Table 2-4. Note will be added to Table 2-11 indicating that other wells are covered on Table 2-4. G-4, G-24 were measured previously; no difference expected.

8. PRPs will respond as directed. Toxicity testing may need to be undertaken for parameters without discharge limits which are detected during treatment.

Treatment Issues

1. Vendors assure removal without ozonation will be effective; the planned test will confirm this.

2.a. Unifirst -- higher flow rate, solids removal occurs before UV unit to reduce loading on follow on carbon unit. Iron was not detected during the 72 hour pump test.

b. Grace -- lower rate, very low iron/dissolved solids. Ozone removed in drawings and text submitted December 31, 1990 to EPA.

3. In exchange system available per written arrangement for Grace on a 24 hour basis and rapid response arrangements for Unifirst will also be explored. For Figure 2-6,

demineralizer will be shown as dashed line, indicating it is a contingency item. Further text explanation will be provided.

4. See 3 above for ion exchange. Air emissions will not result from any unit. Air vents exist on most units for each site's system.

5. 48 hour lab turnaround is minimum for metals analysis. Metals will be analyzed at both sites.

6. Yes, correspondence will be provided and no discharges will occur without local authority permits. Security measures will be defined.

7. Per schedule identified in the text already.

8. See answer to Treatment Issues, Question 2.

9. Reports can be provided as frequently as needed by EPA, even daily.

10. See answer to 9, above.

11. Grace can't yet confirm to EPA if building space will be available. Chomerics, a division of Grace, may be using that space.

12. Ebasco requires four weeks for RAS scheduling and six weeks for SAS scheduling at a minimum. EPA asks Ebasco to confirm the need for RAs versus SAS by Monday 1/14 at the latest.

<u>QAPP</u>

1. See answer to #2 under Groundwater Issues.

2. Portable GC won't be used in sufficient frequency to warrant its presence in the field.

<u>Response to DEP Comments</u> (provided verbally at this meeting)

1. Chronic exposure numbers must be used as long term treatment goals. Why not use these limits now, instead of acute limits referenced?

   PRPs respond that chronic limits will be used and will be added to the discharge limit tables. However, for pilot testing, acute limits will govern, but for actual remediation, chronic limits will apply, per prior agreement with EPA.

DEP notes that this should be confirmed with DEP - Water Pollution Control Section.

Responses to Ebasco's Comments (presented at this meeting)

2. Denis D' Amore stated example approach(es) to this question. PRPs stated reason to start test at 50 gpm (rate confidently established from 72 hour pump test) was to capture greatest zone of capture. Denis stated that "step-up" approach will tell us much about residual contaminants.

PRPs re-enforce the point that they intend to clean up the site, and to accomplish this, it will withdraw contaminants including DNAPL, to the extent possible by long-term pumping. Direct extraction of DNAPL from the bedrock cannot be achieved under current technology, PRPs state. 50 gpm is a goal, which could be lower or higher based on cone of depression realized from this pump test.

EPA proposes a lower pump rate, e.g. 30 gpm undertaken during first week only; then raise to 50 gpm, as a minimum approach, if not a "step up" approach, in three or four stages of discharge over the four week period. PRPs to review and respond next week.